

Environmental Stewardship

Natural Resources

June 2005

A Dahlgren Public Affairs Fact Sheet

At Dahlgren, the Navy's commitment to preserving and protecting natural resources is evident in all aspects of mission activities. We actively promote conscientious stewardship of the environment, from wetlands restoration and improvement to habitat and species protection to cleanup of contamination from past activities.

Natural Resources Management

We plan for and manage our natural resources based on an *Integrated Natural Resources Management Plan* (INRMP) prepared in 2001. Our environmental stewardship goal is to sustain multiple uses of natural resources – such as mission activities, forestry, outdoor recreation, aesthetics, and ecosystem conservation – over the long-term, while promoting the health of the natural systems within which these activities occur. Examples of the many programs under the INRMP include:

Rare Species Protection. A 1992 field inventory found two rare species at Dahlgren – a state-listed species of concern, the funnel-web spider, and the bald eagle, now federally listed as “threatened” under the Endan-



Bald Eagle

gered Species Act. We protect nesting eagles by limiting activities within buffer zones around each nest. The habitat of funnel-web spiders is included in special interest areas (described below). With their numbers decimated

by pesticides, eagles were a rare sight at Dahlgren through most of the 1990s; only a nest or two a year could be found on base. However, in the last five years eagle sightings have become a common occurrence, and the number of nests has increased to six, yielding seven young in 2004.

Sensitive Ecosystems. We have established “special interest areas” with unique ecological characteristics and/or high quality habitat for rare species, including the funnel-web spider and bald eagle. Two special interest areas are located on Mainside (total of 811 acres) and three on the Explosives Experimental Area Range Complex (EEA) (total of 222 acres). These areas are given special consideration during land use planning.

Wetlands Management. Wetland communities cover 16 percent of the installation. One significant example of wetlands management is the restoration of Kitts Marsh, once a drainage swale and pond but now a thriving one-acre freshwater-brackish wetland in Dahlgren's northeast corner, close to US 301. Kitts Marsh, created by excavating, grading, installing a culvert to



Kitts Marsh

bring in tidal Potomac River water, and planting freshwater and brackish marsh plants (e.g., arrow arum, pickerel weed, saltmarsh cordgrass, saltmarsh hay, and seaside goldenrod), now provides wildlife habitat, serves as a stormwater control feature by filtering runoff from our

impervious surfaces (such as parking lots and roads), and is an educational site for local school students.

Fish and Wildlife Management. Dahlgren is home to a diverse array of plant and animal species – 300 plants, 157 birds, 20 mammals, 16 amphibians, 16 reptiles, and 32 fish species. We actively manage resources to protect and enhance fish and wildlife habitat. For example, we set up nest boxes for owls, bats, wood ducks, and bluebirds. The fifty bluebird nests on the installation produce 150-200 young bluebirds a year. In recent years, osprey nesting platforms have proven attractive to the busy fish hawks.



Bluebird

Outdoor Recreation Program. Hunting, fishing, and trapping are permitted on base, in accordance with state seasons and hunting regulations. Hunting helps manage the size of the deer herd in order to maintain a healthy, well-nourished deer population, limit vehicle/deer accidents, and limit damage to native plants from over-browsing. The 15-acre freshwater Hideaway Pond, which supports channel catfish, bluegill, and largemouth bass, has been managed as a catch-and-release fishery since 1992.

Conservation Education Program. We manage this program to increase the community's awareness of natural processes and sound stewardship practices. Dahlgren personnel participate in a number of ways:

Aquatic Workshops. In conjunction with the King George County Extension Service, fifth graders from the local elementary schools participate in a two-day workshop at Wayside Park. Our Natural Resources Manager takes students to Kitts Marsh to teach them about marsh development, stormwater management, and the Potomac River.

Clean the Bay Day. Dahlgren volunteers, including scout troops, pick up the large amounts of trash that drift from upriver and accumulate along the beaches.

Earth Day. Our Natural Resources Manager is often invited to lead Earth Day-related lessons about



wetlands, air quality, and the like, in local schools.

Beaver Pond Nature Trail Interpretive Walks.

Built by Boy Scouts and adult volunteers, Dahlgren's 1.6-mile nature trail and its interpretive stations teach children about coastal forests and tidal creeks.

Chesapeake Bay Program. The Navy is one of the signers of the Chesapeake Bay Agreement, developed pursuant to the Chesapeake Bay Preservation Act, which defines resource protection areas and resource management areas to minimize impacts of construction near the bay. The Chesapeake Bay Agreement, in turn, establishes the Chesapeake Bay Program to protect and restore living resources and vital habitats, improve water quality, manage lands soundly, and engage local communities. At Dahlgren, we actively support the principles of this program.

Air Emissions. Dahlgren is located in King George County, which is "in attainment" (within permitted limits) for all pollutants (carbon monoxide, nitrogen dioxide, ozone, particulates, sulphur dioxide, and lead) that the US Environmental Protection Agency monitors under the Clean Air Act. We have a synthetic minor operating permit from the Commonwealth of Virginia for air emissions of these six pollutants. Our primary emission sources are generators burning diesel fuel and heat-producing boilers burning No. 2 fuel oil.

Water Quality. Because of the base's location on the Potomac River, we carefully adhere to Virginia/federal regulations designed to maintain water quality by minimizing the flow of sediments and untreated wastes



into the river and its tributaries, Gambo Creek and Upper Machodoc Creek.

Wastewater Treatment. The base maintains a municipal sewage treatment plant that discharges into Upper Machodoc Creek in accordance with a Virginia Pollutant Discharge Elimination System (VPDES) permit. Domestic wastewater is treated using the following processes: mechanical bar screen; dissolved air floatation unit; first and second stage aeration basins set up for biological treatment removal; constructed wetland; ultra-violet light disinfection system; re-aeration; and flow measurement. An additional VPDES permit covers a small quantity of both stormwater and industrial discharges resulting from gun mount sumps, oil/water separators, and stormwater discharges associated with industrial activities.

Stormwater and Soil Erosion Control. By careful planning and strict implementation and monitoring, we minimize erosion of soil and stormwater discharges that otherwise would become sediment flowing into creeks and the Potomac River, adding unneeded nutrients, blanketing plants and animals on the bottom, and reducing critical light needed to support submerged aquatic vegetation. We design for long-term control of stormwater discharges and adhere to state regulations on pollution prevention for construction projects.

Shoreline Protection. Dahlgren has more than ten miles of shoreline along the Potomac River and Upper Machodoc Creek. This shoreline is subjected to periodic northeasters and hurricanes that result in the loss of real estate and sedimentation of adjacent waters. In 2003, damage from Hurricane Isabel triggered the allocation of repair funds. Dahlgren's shoreline erosion project will be designed to protect over 3,000 feet of shoreline from future damaging storms.

If you have any questions or comments, please call:

Naval District Washington West Area Public Affairs Officer
Phone (540) 653-8153
Fax (540) 653-4269

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